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## (54) METHOD FOR UPDATING COMMUNICATION KEY

## (57) Abstract:

PROBLEM TO BE SOLVED: To reduce communication between a home communication system and an in-zone communication system by transmitting an update key to the in-zone communication system, while maintaining a communication key in the home communication system by executing the authentication of a device or a communication system by using the update key in a key updating system for updating the communication key.

SOLUTION: At execution of key update, a home communication system 70 generates a new communication key (for example, a new authentication key SSD-A-NEW) by using a sequence RANDSSD generated by the home communication system 70 and a secret key A-KEY maintained in the home communication system 70 and a device 64. Likewize, the home communication system 70 generates and update key SSD-KEY, by using the sequence RANDSSD an the secret key A-KEY.

